

Sherman County

Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors 6/28/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 13 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Sherman County economy.¹

These 13 sectors have a total direct output of approximately **\$228.0 million** and support **531 jobs** in Sherman County. Running the model for all 13 sectors simultaneously produces the following results:

| Agriculture, Food, and Food Processing Sector Contribution to Overall Sherman County Economy | | | | | |
|--|--------------|---------------|--------------------------------|--|----------------------|
| Contribution Type ² | Employment | % Employment | Total Value Added ³ | Total Value Added % of Gross Regional Product ⁴ | Output ⁵ |
| Direct Effect | 530.6 | 13.61% | \$29,063,354 | 12.97% | \$228,018,981 |
| Indirect Effect | 274.6 | 7.04% | \$25,337,212 | 11.30% | \$46,768,336 |
| Induced Effect | 101.8 | 2.61% | \$5,601,592 | 2.50% | \$10,782,224 |
| Total Effect | 907.0 | 23.26% | \$60,002,157 | 26.77% | \$285,569,541 |

As shown in the above table, agriculture, food, and food processing sectors support **907 jobs**, or **23.26%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 13 agriculture, food, and food processing sectors is approximately **\$60.0 million**, or **26.77% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **203 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Sherman County.

| Top Ten Agriculture, Food, and Food Processing Sectors by Employment | | |
|--|------------------|--------------|
| Sector | Total Employment | Total Output |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | 202.6 | \$35,489,648 |
| Grain farming | 192.4 | \$97,569,992 |
| Wholesale trade | 107.9 | \$22,632,002 |
| Support activities for agriculture and forestry | 51.0 | \$1,414,173 |
| Truck transportation | 38.3 | \$5,999,523 |
| Animal production, except cattle and poultry and eggs | 23.1 | \$3,346,625 |
| Spice and extract manufacturing | 22.8 | \$11,492,870 |
| Monetary authorities and depository credit intermediation | 20.7 | \$4,267,098 |
| Real estate | 17.7 | \$1,944,633 |
| Soybean and other oilseed processing | 15.5 | \$70,869,119 |

The grain farming sector directly contributes approximately **\$97.6 million** to the Sherman County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

| Top Ten Agriculture, Food, and Food Processing Sectors by Output | | |
|--|------------------|--------------|
| Sector | Total Employment | Total Output |
| Grain farming | 192.4 | \$97,569,992 |
| Soybean and other oilseed processing | 15.5 | \$70,869,119 |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | 202.6 | \$35,489,648 |
| Wholesale trade | 107.9 | \$22,632,002 |
| Spice and extract manufacturing | 22.8 | \$11,492,870 |
| Truck transportation | 38.3 | \$5,999,523 |
| Oilseed farming | 3.4 | \$4,776,473 |
| Monetary authorities and depository credit intermediation | 20.7 | \$4,267,098 |
| Animal production, except cattle and poultry and eggs | 23.1 | \$3,346,625 |
| Owner-occupied dwellings | 0.0 | \$2,227,047 |

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Sherman County economy.

| All Agriculture, Food, and Food Processing Sectors | | |
|--|-------------------------|---------------------|
| Sector | Total Employment | Total Output |
| Oilseed farming | 3.4 | \$4,776,472.57 |
| Grain farming | 192.4 | \$97,569,992.07 |
| All other crop farming | 7.7 | \$808,562.82 |
| Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming | 202.6 | \$35,489,646.91 |
| Poultry and egg production | 0.3 | \$191,561.49 |
| Animal production, except cattle and poultry and eggs | 23.1 | \$3,346,625.09 |
| Support activities for agriculture and forestry | 51.0 | \$1,414,172.53 |
| Soybean and other oilseed processing | 15.5 | \$70,869,117.74 |
| Bread and bakery product, except frozen, manufacturing | 4.3 | \$498,188.79 |
| Frozen cakes and other pastries manufacturing | 0.3 | \$40,515.53 |
| Spice and extract manufacturing | 22.8 | \$11,492,870.33 |
| Farm machinery and equipment manufacturing | 3.7 | \$1,254,212.26 |
| Veterinary services | 3.4 | \$267,041.53 |

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Sherman County, the retail sector was omitted.